

611 MACHINE KLEEN™

Machine Kleen™ is a unique water soluble, low foaming, high alkaline blend of surfactants and biostatic additives that is designed to remove debris, process oils, deposits, bio-films and other contamination from machining tool sumps and surfaces. Machine Kleen™ will penetrate and loosen bio-films, compacted chips and swarf and other contamination allowing for quicker removal and clean up. When allowed to circulate properly in the contact and non-contact areas of the machine tool, Machine Kleen™ will solubilize hard water soaps, clean the distribution channels and allow for better flow through the machine tools and flumes.

Machine Kleen™ when used and circulated properly will provide the following benefits and advantages:

- Protection of the machine from rusting and corrosion during cleaning.
- 100% oil rejecting.
- Powerful detergency and wetting to remove and eliminate residues.
- Non-hazardous and non-flammable.
- Operator friendly.
- Does not contain any solvents, phenols, chlorine or nitrates.
- Environmentally safe.
- Waste-treatable.
- Low foaming.
- Mild odor
- Excellent hard water stability up to 1500 ppm of Calcium Carbonate.
- Compatible and recommended for use with ferrous metals, non-ferrous metals and stainless steel.

Clean-out Procedure:

- Drain the entire individual sump or central system.
- Remove all metal chips, swarf and other debris from sump, flumes, trenches, lines, oil pans, filtration units and holding tanks.
- Fill the system or individual sump with enough water to allow the pumps to operate. Warm water is desirable but not necessary.
- Add 3-5% by volume (1:20 to 1:30) of Machine Kleen™ and circulate this solution for 2 to 4 hours depending upon the severity of contamination. During this period of circulation, brush the trenches and filter elements and scrub the machine. (Always add Machine Kleen™ to water, never in reverse order)
- Steam clean all contaminated surfaces, including the machine centers, tool surfaces and other areas that are not wetted by normal flow of the circulating flow of the Machine Kleen™ solution.
- When the cleaning is complete, drain the Machine Kleen™ solution from the system.
- Refill with enough fresh water to circulate throughout the system so that all traces of the cleaner are removed. Rinse all the surfaces of the machine and system. Drain all of the lines and sumps. Repeat this rinse process until the rinse solution is clear.
- Immediately after the final rinse, refill the system with the required amount of fresh water.
- Add 311 Synkool SS™, 411 MaxKool SS™ or 511 UltraKool SS™ at the recommended concentration.
- Circulate the coolant mixture through the system to insure a proper homogenous mixture.

Monitoring Concentration of Machine Kleen™:

Concentration can easily be monitored by using a refractive index reading. Take the refractive index reading and multiply it by **3.85**

Concentration (%) = Refractive index reading X **3.85**

TYPICAL PROPERTIES

Appearance, neat	Clear water-white
Appearance, 5% solution	Translucent
pH 5% solution	12.7 +/- 0.4
Density lbs/gal	9.2 +/- 0.2
Specific Gravity	1.11 +/- 0.02
VOCs	None
Flash Point °F/°C, PMCC	None
Nitrates	None
Phenols	None
Chromates	None
Mercury Compounds	None
Chlorine	None